

Amendments to the Claims:

Please amend the claims according to the following listing. This listing of claims will replace all prior versions of claims in the application:

Claim 1 (Currently Amended): ~~An isolated metabolite~~ <sup>comprising at least one</sup> ~~produced by a biologically pure~~  
*Streptomyces* sp. strain selected from a *Streptomyces* sp. strain having all the identifying characteristics of the strain deposited with NRRL with Accession No. B-30145; and mutants of the strain deposited with NRRL with Accession No. B-30145, wherein the mutants have all the identifying characteristics of NRRL No. B-30145; and wherein the ~~metabolite is in a non-~~  
~~naturally occurring environment and exhibits~~ activity against plant pathogenic fungi, shows UV  
absorption between about 215 nm and about 220 nm and is not aromatic.

Claim 2 (Previously Presented): The ~~metabolite~~ <sup>compound</sup> of claim 1 <sup>one or more</sup> [or claim 40], wherein the ~~metabolite~~  
~~has~~ <sup>has</sup> a molecular weight [M+ H+] between about 865 Daltons and about 925 Daltons.

Claim 3 (Previously Presented): The ~~metabolite~~ <sup>compound</sup> of claim 2, wherein the metabolite has the molecular weight selected from the group consisting of about 866.5 Daltons, about 882.5 Daltons, about 898.4 Daltons, about 892.5 Daltons, about 908.5 Daltons and about 924.5 Daltons.

Claim 4 (Previously Presented): The ~~metabolite~~ <sup>compound</sup> of claim 1 [or claim 40], wherein the metabolite is heat and base stable, is acid labile and has a molecular weight [M+ H+] between about 865 Daltons and about 925 Daltons.

Claim 5 (Previously Presented): The ~~metabolite~~ <sup>compound</sup> of claim 4, wherein the metabolite has the molecular weight selected from the group consisting of about 866.5 Daltons, about 882.5 Daltons, about 898.4 Daltons, about 892.5 Daltons, about 908.5 Daltons and about 924.5 Daltons.

Claim 6 (Cancelled)

Claim 7 (Cancelled)

Claim 8 (Cancelled)

Claim 9 (Cancelled)

Claim <sup>composition</sup> ~~10~~ (Previously Presented): The ~~metabolite~~ of claim 1 [or claim 40] wherein the metabolite comprises one or more chemical moieties selected from the group consisting of an oxygenated methine carbon and a sugar moiety.

Claim 11 (Cancelled)

Claim <sup>The of claim 1 further</sup> ~~12~~ (Previously Presented): A composition comprising ~~the metabolite of claim 1 (or claim 40 and a carrier.~~

Claim <sup>The of claim 1 and</sup> ~~13~~ (Previously Presented): A composition comprising more than one metabolite of claim ~~1 (or claim 40 and a carrier.~~

Claim <sup>12</sup> 14 (Original): The composition of claim 12, further comprising at least one chemical or biological pesticide.

<sup>10</sup> Claim <sup>12-15</sup> ~~13~~ (Original): The composition of claim 13, further comprising at least one chemical or biological pesticide.

<sup>11</sup> Claim <sup>12-15</sup> ~~16~~ (Previously Presented): The composition of any one of claims ~~12-15~~, wherein the composition is formulated as a formulation selected from the group consisting of a wettable powder formulation, a granule formulation, an aqueous suspension, an emulsifiable concentrate, and a microencapsulated formulation.

Claim 17 (Cancelled)

12  
Claim 12 (Previously Presented): A method for protecting or treating plants, fruit and roots from a fungal infection comprising applying an effective amount of the metabolite of claim 1 or claim 40 to the plant, fruit or root.  
*one or more of composition*

13  
Claim 13 (Previously Presented): The method of claim 18, wherein the fungal infection is caused by a fungus selected from the group consisting of *Alternaria solani*, *Botrytis cinerea*, *Rhizoctonia* sp., *Sclerotinia* sp. and *Phytophthora* sp.

14  
Claim 14 (Previously Presented): The method of claim 18, further comprising applying an effective amount of one or more additional metabolites of claim 1 or claim 40 to the plant, root, or fruit.  
*wherein the composition contains more than one metabolite*

15  
Claim 15 (Previously Presented): The method of claim 18, wherein the metabolite has a molecular weight [M+ H<sup>+</sup>] between about 865 Daltons and about 925 Daltons.

16  
Claim 16 (Previously Presented): The method of claim 21, wherein the molecular weight of the metabolite is selected from the group consisting of about 866.5 Daltons, about 882.5 Daltons, about 898.4 Daltons, about 892.5 Daltons, about 908.5 Daltons and about 924.5 Daltons.

17  
Claim 17 (Previously Presented): The method of claim 18, wherein the metabolite is heat and base stable, is acid labile and has a molecular weight [M+ H<sup>+</sup>] between about 865 Daltons and about 925 Daltons.  
*of the composition*

18  
Claim 18 (Previously Presented): The method of claim 23, wherein the metabolite has the molecular weight selected from the group consisting of about 866.5 Daltons, about 882.5 Daltons, about 898.4 Daltons, about 892.5 Daltons, about 908.5 Daltons and about 924.5 Daltons.

Claim 25 (Cancelled)

Claim 26 (Cancelled)

Claim 27 (Cancelled)

Claim 28 (Cancelled)

Claim 29<sup>19</sup> (Previously Presented): The method of claim 18, wherein the ~~metabolite~~ <sup>composition</sup> is applied as a formulation selected from the group consisting of a wettable powder formulation, a granule formulation, an aqueous suspension, an emulsifiable concentrate and a microencapsulation formulation.

Claim 30<sup>20</sup> (Original): The method of claim 29, further comprising applying an effective amount of at least one chemical or biological pesticide.

Claim 31<sup>21</sup> (Previously Presented): The method of claim 29, wherein the formulation comprises more than one metabolite ~~of claim 1 or claim 40~~.

Claim 32<sup>22</sup> (Currently Amended): An antifungal composition comprising a ~~the metabolite~~ <sup>composition</sup> produced by ~~Streptomyces and of claim 1~~ <sup>wherein the metabolite is</sup> isolated according to a method comprising:

- (a) loading a whole broth culture of *Streptomyces* sp. strain NRRL No. B-30145 or mutants thereof that have all the identifying characteristics of NRRL No. B-30145 onto a non-ionic absorbent polymeric resin;
  - (b) eluting the metabolite with an alcohol;
  - (c) screening the eluent of step (b) with a bioassay for fractions of the eluent exhibiting antifungal activity;
  - (d) loading the fractions of the eluent exhibiting antifungal activity of step (c) on a HPLC column; and
  - (e) eluting the metabolite with an organic solvent, to produce the antifungal composition.
- Claim 33<sup>23</sup> (Previously Presented): The composition of claim 32, wherein the eluent of step (b) is methanol or a gradient of aqueous methanol.

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Claim 34 (Previously Presented): <sup>amended</sup> The composition of claim 32, wherein the bioassay of step (c) is selected from the group consisting of the agar diffusion assay or slide germination assay.

1524  
Claim 35 (Previously Presented): <sup>amended</sup> The composition of claim 32, wherein the organic solvent of step (e) is an acetonitrile-water gradient.

Claim 36 (Cancelled)

Claim 37 (Cancelled)

Claim 38 (Cancelled)

Claim 39 (Cancelled)

125  
Claim 40 (Currently Amended): The metabolite of claim 1, wherein the isolated biologically pure *Streptomyces* sp. strain is the *Streptomyces* sp. strain having all the identifying characteristics of the strain deposited with NRRL with Accession No. B-30145.

24  
Claim 41 (New): A composition comprising at least one metabolite of claim 1.

24  
Claim 42 (New): The metabolite of claim 1 applied to a plant.